

# **Modulation of a photon echo shape in a ruby caused by hyperfine structure of trivalent ions of "Cr-53"**

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## **Abstract**

Temporal shape of a primary photon echo (PPE) in a ruby is experimentally investigated. Using of special equipment, including a dye laser and a stroboscopic oscilloscope, allows to observe the "beats" of temporal shape of primary photon echo. Analysis shows that these "beats" are due to the hyperfine interaction of electrons of "Cr-53" isotope ions with their nuclei.

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## **Keywords**

Hyperfine structure, Isotope, Optical echo-spectroscopy, Ruby